

## Research on Characteristic Factors of High-end Manufacturing Industry in "Belt and Road Initiative"

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**Abstract:** This paper comprehensively constructs the high-end manufacturing trade network of 122 countries in "Belt and Road Initiative" by using the trade data of UN Comtrade2018, and investigates the position and trade pattern of each country in the trade network. Research shows that China, India and Singapore play an important role as "bridge" and "hub" in the high-end manufacturing trade network of "Belt and Road Initiative", while in Central Asia, Some Islamic countries in North Asia are on the edge of the "Belt and Road Initiative" high-end manufacturing trade network, and unbalanced non-reciprocal trade relations still exist in the trade network. More often than not, China plays the role of a trade network as a whole. The issuer of export behavior, Russia has a group trade model in a specific region, India's trade model is relatively lack of reciprocity.

### 1. Introduction

#### 1.1 The History of Belt and Road Initiative.

The ancient Silk Road has flourished since Qin and Han dynasties and eventually became the longest commercial route in human history across Southeast Asia, Central Asia, Mongolia, Russia, West Asia, North Africa and Central and Eastern Europe. With the rise of the modern western world, the development of the eastern civilization fell into the low valley of the Silk Road. Until the 1990s, the two-way flow of "made in China" and "Middle East Petroleum" was taken as the carrier, and the modern Silk Road rose quietly. Although the modern Silk Road has given the countries along the Silk Road a certain opportunity and space for development, it has failed to reproduce the splendor of the ancient Silk Road[1]. On the one hand, the reason for this Because China's sales to the Middle East are still limited to low-end manufacturing, facing "anti-scissors gap" constraints. On the other hand, oil earned from energy exports alone in the Middle East is typically settled in dollars, and manufacturing is slow to develop because of a lack of alternative investment channels that eventually return to U.S. capital markets. Under the US-dominated "goods-oil-dollar" triangular trade model, the United States is the biggest winner, while countries along the Silk Road, including China, benefit very little.

#### 1.2 Present Situation of Belt and Road Initiative.

Belt and Road Initiative strategy puts forward by the third Plenary session of the 18th CPC Central Committee is not an enhanced version of the modern Silk Road. The "Belt and Road Initiative" strategy carries the historic mission of constructing China's new open economy system and planning a new global political and economic order. Its purpose is to realize China's commodity capital, technology and "Belt and Road Initiative" along the developing countries resources, the market of all-round integration[2]. From the angle of industry, the high-end manufacturing industry refers to the new industry with high technology content, high added value and strong competitiveness in the manufacturing industry. From the perspective of the industrial chain, it refers to the subdivision industry in the high-end link of a certain industrial chain.

In the diplomatic mobilization of Belt and Road Initiative, China's leaders have repeatedly taken it

as the focus of promoting development. Taking the "Belt and Road Initiative" strategy as an opportunity, China's high-end manufacturing industry is expected to replicate the success of the United States and Japan in manufacturing investment and trade in the Asia-Pacific region, and to form a new production network and consumer market in the "Belt and Road Initiative" region along the way[3]. To realize the transition to high-end in the international division of labor, and to promote the international competitiveness of the manufacturing industry of the developing countries along the Silk Road. However, whether it is the ancient Silk Road or the "Belt and Road Initiative" strategy, local politics, trade and religious culture have always been the three core issues facing its development. The political, trade and religious cultural ties of many countries along the way of "Belt and Road Initiative" are intertwined and complicated, which makes the traditional linear analysis framework unable to effectively explain the high-end manufacturing trade on "Belt and Road Initiative" from the overall perspective.

In view of this, this paper selects 122 important node countries on the "Belt and Road Initiative", and according to 91 high-end manufacturing products defined by OECD, constructs the high-end manufacturing trade network of the countries on the "Belt and Road Initiative" in 2018. This paper identifies the overall pattern and local characteristics of high-end manufacturing trade among countries in Belt and Road Initiative from the whole angle of view, which makes up for the shortage of mathematical support and the limitation of perspective at present, and empirically analyses religion and language among countries, and makes up for the lack of mathematical support and the limitation of perspective[4]. The impact of risk sources such as FTA and national attributes such as the GDP, R&D, system on the formation of high-end manufacturing trade networks on the Belt-Road is aimed at better integrating the Grasp the formation mechanism of the high-end manufacturing trade network in Belt and Road Initiative: reveal the betel type of trade among countries and its influencing factors, and provide the basis for the development of high-end manufacturing trade in China's Belt and Road Initiative from the theoretical and empirical point of view.

## 2. Belt and Road Initiative On The Religious, Linguistic FTA And High-End Manufacturing Trade Characteristics Of The Facts

### 2.1 Religion, Language and FTA on "Belt and Road Initiative".

The "Belt and Road Initiative" strategy covers many countries and regions in Asia, Europe, and the African continent. There are huge differences in the degree of economic development among countries, and cultural, religious, and ideological differences. Combined with the competition and game between the global and regional powers in the region, the religious, ethnic and interest groups along the Silk Road are complicated. In a sense, trade networks between countries are embedded in intertwined religious, linguistic and geopolitical networks[5]. Therefore, it is important to know the religion, language and free trade agreement (known as FTA) apart from China. As table 1 shows, in terms of religious beliefs, nearly half of the 122 countries are primarily Irishman. In particular, the major countries of Central Asia and North-West Asia, such as Saudi Arabia. Arab, UAE, Kazakhstan and other countries, Islam has absolute influence along the Silk Road. Christianity is the second largest faith along the Silk Road, accounting for 30.77% of 122 countries, mainly in Eastern Europe. The third largest religion is Buddhism, accounting for 15.38%, mainly in Southeast Asia. Accordingly, Arabic is also the most widespread along the Silk Road, with 21.54% of countries using it as an official language. The average distribution of other languages was 7.69% in English, 15% in Malay and 3.08% in Serb.

Table 1 Top Five Proportion on Religion, Language and Fta

Religion	Proportion	Official Language	Proportion	FTA	Proportion
Islam	44.62%	Arabic	21.54%	RCEP	18.46%
Christianity	30.77%	English	7.69%	EU	16.83%
Buddhism	14.79%	Malay	6.15%	ASEAN	15.33%
Free belief	4.62%	Russian	6.11%	ESCAP	10.54%
Hinduism	3.35%	Serb	4.52%	EEU	6.16%

In terms of regional trade agreements, the members of the RCEP, TPP, ASEAN, EXCAP are mainly Southeast Asian countries, the EU includes some of the Central and Eastern European countries along the Silk Road, and only Russia-led EEU includes Kazakhstan. In the few Islamic countries of Central Asia, such as Tajikistan and Kyrgyzstan, where the economic and trade status of the Arab States is highly disproportionate to their religious and cultural influence in the region, they are often ignored in the process of economic integration in the Asian region, "weak country-strong religion" is its universal state.

### 2.3 Basic Information of Top 10 High-End Manufacturing Export Countries Along the "Belt and Road" Route in 2018.

Specifically, China has the largest share of the high-end manufacturing export market in the Belt and Road Initiative country (Table 2). It accounts for 40.37%, and has a definite advantage in R/D. This shows that with the rapid rise of China's modern industry and the transformation and upgrading of industrial structure, the comparative advantage of foreign trade has changed accordingly, from labor-intensive to capital-and technology-intensive.

Singapore came in second with 8.45% of the market and was restricted by the economy. Although its market share was only 1 / 5 of that of China, it had a high level of RXD, in electronics, chemistry and chemical industry, and bio-medicine. The advantages of high-end manufacturing industries such as precision machinery cannot be ignored. Under the trend of globalization of production and intra-product division of labor, Southeast Asian countries such as Thailand, Malaysia, Vietnam and the Philippines have attracted a large number of industrial transfers from developed countries such as Japan and South Korea, and have undertaken the processing and assembly of some high-end manufacturing products. As a result, these countries have a certain share of the export market of high-end manufacturing, but their R/D as a percentage of their GDP. It is expected that the international competitiveness of its high-end manufacturing industry will decline in the long term as its domestic labor costs rise and its industries in developed countries shift to lower-cost countries.

Russia is a major regional power of "Belt and Road Initiative". After the disintegration of the Soviet Union, it inherited its scientific and technological system, especially the flight and space industry, which is in a leading position in the world and has a strong international competitiveness in certain high-end manufacturing industries. Occupy 4.3% of the market share. Before the proposal of "Belt and Road Initiative", Russia signed EEU with Armenia, Belarus, Kazakhstan, Tajikistan and Kyrgyzstan[6]. In recent years, India's economy has developed rapidly and the great powers have lost their ambition. They have signed free trade agreements with many countries in Central Asia and South Asia, and the fourth set of medium-and long-term scientific and technological innovation policies has been put forward at the beginning of this paper[7]. Relying on scientific and technological innovation to achieve national development, high-end manufacturing market share reached 6.03%.

Table 2 Basic Information of the Top 10 High-End Manufacturing Export Countries in 2018

Ranking	Nation	Market Share	R&D/GDP	Trade Agreement Signed or Being Negotiated
1	China	40.37%	2.08	China-Singapore, China-Pakistan, Asia-Pacific Trade Agreement, RCEP
2	Singapore	8.45%	2.11	GSTP, Singapore-China, Singapore-India, Asia-Pacific Trade Agreement, TPP, RCEP
3	Thailand	6.78%	0.25	GSTP, ASEAN, Thailand-Laos, RCEP
4	India	6.03%	0.92	GSTP, India-ASEAN, APTA, India-Afghanistan, India-Bhutan, India-Malaysia, India-Nepal, India-Singapore, India-Sri Lanka, SAFTA, RCEP
5	Malaysia	5.31%	0.63	ASEAN, Malaysia-Pakistan, TPP, RCEP
6	Russia	4.33%	1.01	Commonwealth of Independent States, RCEP, EEU
7	Vietnam	3.74%	0.18	GSTP, ASEAN, TPP, RCEP
8	Czech	3.57%	1.40	EU
9	Hungary	3.45%	0.91	EU
10	Philippine	2.75%	0.09	GSTP, ASEAN, TPP

In general, Russia and India are the major regional powers that China is facing in developing

high-end manufacturing trade on Belt and Road Initiative. It is of vital significance to handle the competition and cooperation with the two countries well for the implementation of Belt and Road Initiative strategy. The Arab States of Central Asia, despite their strong religious and cultural influence along the Silk Road, have generally lagged behind in the development of their manufacturing industries and have fully exploited their production and market potential, China is expected to replicate the success of US manufacturing trade and investment in the Asia-Pacific region, creating a new production and consumption network on Belt and Road Initiative.

### **3. Conclusion**

Although the religious culture of the countries in the "Belt and Road Initiative" is very different, it is not the leading factor in the formation of the high-end manufacturing trade network along the Silk Road. The quality of national economic system and the efficiency of government play an important role in promoting high-end manufacturing trade. Therefore, on the one hand, all countries in the "Belt and Road Initiative" should seek common ground while reserving differences and reach a political and religious understanding; on the other hand, they should enhance the freedom of trade, finance and currency and the effectiveness of the government, with a view to achieving real mutual benefit and win-win results.

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